

PCB terminal block - PTSM 0,5/ 4-2,5-V THR R44 - 1770979

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PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, product range: PTSM 0,5/..-V-THR, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 90 °, color: black, Pin layout: Linear double pinning, Solder pin [P]: 2.1 mm, type of packaging: 44 mm wide tape


The figure shows a 3-position version

Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ High current carrying capacity of 6 A in very compact dimensions
- ✓ Designed for integration into the SMT soldering process
- ✓ Vertical connection enables multi-row arrangement on the PCB



Key Commercial Data

Packing unit	310 pc
Minimum order quantity	310 pc
GTIN	 4 0 4 6 3 5 6 4 5 9 5 5 6
GTIN	4046356459556
Weight per Piece (excluding packing)	2.600 g
Custom tariff number	85369010
Country of origin	India
Sales Key	AACBBA

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	PTSM 0,5/..-V-THR
Pitch	2.5 mm
Number of positions	4
Mounting type	THR soldering

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Technical data

Item properties

Pin layout	Linear double pinning
Number of levels	1
Number of connections	4
Number of potentials	4

Electrical parameters

Nominal current	6 A
Nom. voltage	160 V
Rated voltage (III/3)	63 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	200 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

Connection capacity

Connection method	Push-in spring connection
pluggable	no
Conductor cross section solid	0.14 mm ² ... 0.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 0.5 mm ² (up to 0.75 mm ² supported, at a rated insulation voltage of 32 V at III/2)
Conductor cross section AWG / kcmil	26 ... 20
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.34 mm ²
Cylindrical gauge a x b / diameter	- / 1.2 mm
Stripping length	6 mm

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

Housing color	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Dimensions for the product

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Technical data

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	5 mm
Width [w]	10.5 mm
Height [h]	12.1 mm
Pitch	2.5 mm
Height (without solder pin)	10 mm
Solder pin [P]	2.1 mm
Pin spacing	2.5 mm
Pin dimensions	0.3 x 0.8 mm

Dimensions for PCB design

Hole diameter	1.2 mm
Pin spacing	2.5 mm

Packaging information

Type of packaging	44 mm wide tape
Pieces per package	310
Denomination packing units	Pcs.
[W] tape width	44 mm
[A] coil diameter	330 mm
[W2] coil overall dimension	50.4 mm
Outer packaging type	Transparent-Bag

General product information

Type of note	Note on application
Note	Pick and place pads may protrude beyond the components. The PCB layout must ensure that collisions are avoided when components are assembled.

Processing notes

Process	Reflow/wave soldering
Specification	Following IPC/JEDEC J-STD-020D.1:2008-03
	Following IEC 61760-1:2006-04
	Following IEC 60068-2-58:2005-02
Moisture Sensitive Level	MSL 1
Classification temperature T _c	260 °C
Solder cycles in the reflow	3

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)

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Technical data

Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test result	Test passed
Test for conductor damage and slackening	IEC 60998-2-2:2002-12
	Test passed

Pull-out test

Pull-out test	IEC 60998-2-2:2002-12
Conductor cross section / conductor type / tensile force	0.14 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	0.5 mm ² / solid / > 20 N
	0.75 mm ² / flexible / > 30 N

Mechanical tests according to standard

Test specification	IEC 60998-2-2 (in parts)
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Electrical tests

Rated current	6 A
Conductor cross section	0.5 mm ²
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2 mm
Minimum creepage distance value (III/2)	2 mm
Minimum creepage distance value (II/2)	2 mm

Temperature-rise test

Specification	IEC 60998-2-1:2002-12
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Current carrying capacity / derating curves

Caption	Type: PTSM 0,5/...-2,5-V THR R44 Tested according to DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 5
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Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)

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Technical data

Vibration test

Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Insulation resistance

Specification	IEC 60998-1:2002-12
Result	Test passed
Insulation resistance, neighboring positions	1 TΩ

Glow-wire test

Specification	IEC 60998-1:2002-12
Temperature	850 °C
Time of exposure	5 s

Mechanical strength/tumbling barrel test

Specification	IEC 60998-1:2002-12
Number of drop cycles	50

Standards and Regulations

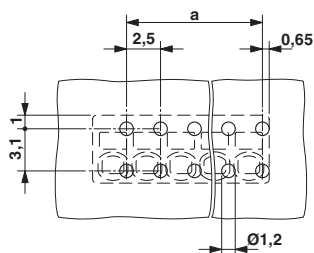
Connection in acc. with standard	EN-VDE
	UL
Flammability rating according to UL 94	V0

Environmental Product Compliance

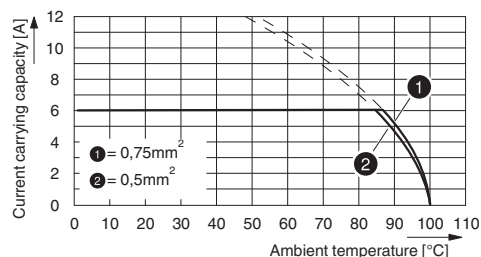
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Drilling diagram



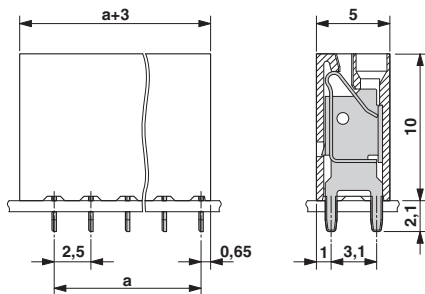
Diagram



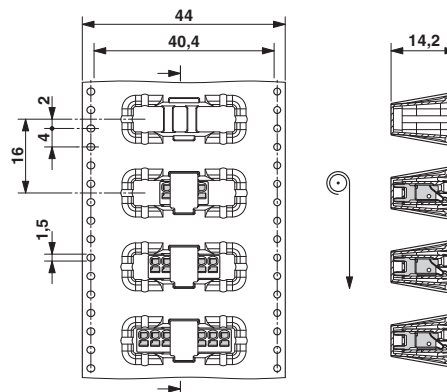
Type: PTSM 0,5/...-2,5-V THR R44
 Tested according to DIN EN 60512-5-2:2003-01
 Reduction factor = 1
 Number of positions: 5

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Dimensional drawing



Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27261100
eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 8.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002637
ETIM 6.0	EC002643
ETIM 7.0	EC002643

UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	39121432
UNSPSC 12.01	39121432
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

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Approvals

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VDE Zeichengenehmigung / UL Recognized / EAC / cULus Recognized

Ex Approvals

Approval details

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40048725
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E118976-20130619
		B	
Nominal voltage UN		150 V	
Nominal current IN		5 A	
mm ² /AWG/kcmil		26-18	

EAC			B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20030527
		B	
Nominal voltage UN		150 V	
Nominal current IN		5 A	
mm ² /AWG/kcmil		26-20	

Accessories

Accessories

Cable end sleeve

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Accessories

Ferrule - AI 0,25- 6 BU - 3203040



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: blue

Ferrule - AI 0,25- 6 YE - 3203024



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: yellow

Ferrule - AI 0,34- 6 TQ - 3203053



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: turquoise

Screwdriver tools

Screwdriver - SZS 0,4X2,0 - 1205202



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

Additional products

Sample set - SAMPLE PTSM 0,5/ 4-2,5-V-THR - 1701102



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